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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,126	09/17/2003	Bradley L. Todd	2003-IP-010228US1	4729
7590	12/13/2005		EXAMINER	
Robert A. Kent Halliburton Energy Services 2600 S. 2nd Street Duncan, OK 73536			RICHARD, CHARLES R	
			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/664,126

Applicant(s)

TODD ET AL.

Examiner

C. R. Richard

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-81 is/are pending in the application.
- 4a) Of the above claim(s) 1-14, 24-27, 31-46, 51-54 and 68-81 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 15-23, 28-30, 47-50 and 55-67 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-81 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/17/03 - 10/11/05</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-14, drawn to a method for forming a self-degrading filter cake, classified in class 507, subclass 203.
- II. Claims 15-31 and 47-68, drawn to a method of drilling and a related fluid, classified in class 507, subclass 110.
- III. Claims 32-46, drawn to a method for degrading a filter cake, classified in class 166, subclass 300.
- IV. Claims 69-81, drawn to a bridging agent, classified in class 536, subclass 1.11+.

The inventions are distinct, each from the other because of the following reasons.

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the fluid is useful in a process where a filter cake is degraded.

Inventions I and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of

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operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions perform opposite functions.

Inventions I and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the bridging agent is useful in a process where a filter cake is degraded.

Inventions II and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the fluid is useful in a process where a filter cake is formed.

Inventions II and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the drilling process can be practiced with a fluid containing a fluid loss agent in addition to a bridging agent.

Inventions III and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the bridging agent can be used in forming a filter cake.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Applicant's attorney, Robert Kent, on August 4, 2005, a provisional election was made without traverse to prosecute the invention of group II (claims 15-31 and 47-68). Affirmation of this election must be made by Applicant in replying to this Office action. Claims 1-14, 32-46 and 69-81 are withdrawn from further consideration by the Examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

2. This application contains claims directed to groups of patentably distinct species of the claimed invention.

Species Group (I): degradable material in a bridging agent

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for the group above for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Applicant's attorney, Robert Kent, on August 4, 2005, a provisional election was made without traverse to prosecute (I) poly(orthoesters) . Affirmation of this election must be made by Applicant in replying to

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this Office action. The other species of this group are withdrawn from further consideration by the Examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention. Claims 24-27, 31, 51-54 and 68 are withdrawn similarly.

Information Disclosure Statement

3. The information disclosure statement filed 2 December 2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. Documents listed for which copies were supplied or for which a copy is not required were considered, however.

Given the very large number of IDS's filed in this case (at last count 10) and the large number of references involved (at last count a total of 209), the Examiner points out that the requirement under 37 CFR 1.56 only requires that documents **material** to patentability be included and something that is cumulative is not considered material. Applicant may find the discussion in MPEP section 2004 helpful, especially number 13 under this heading and the cases cited there.

Drawings

4. The drawings are objected to because it is unclear what the curves in Figure 1 represent as the key marks all run together; if necessary, the scale on the y axis should be expanded so that the curves are distinguishable. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5.The title of the invention is not descriptive – it could be used to describe every invention in a multitude of classes. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

6.The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The definition given at page 6, paragraph 20 of the specification for “efficient filter cake” is broad enough to include about any situation. The scope of the claimed subject mater is thus unclear.

8. Claims 59, 63 and 66 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims require that a “sufficient” amount of a specified material be present so that a “desired” amount of something specified results. This is no way to tell what is actually required given this wording – anything could suffice.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 47-50, 56-59, 61 and 63-67 are rejected under 35 U.S.C. 102(e) as being anticipated by Nguyen in US Patent Application Publication 2004/0261993. Nguyen teaches a completion fluid comprising a hydraulic cement [a viscosifier], water and a degradable material (see page 2, paragraph 18). A fluid loss control agent such as a natural gum, starch or a cellulose derivative may be added (see page 3, paragraph 24); these may function as viscosifiers also. The degradable material may be a polyorthoester [a bridging agent] (see page 3, paragraph 28) and of various particle types/sizes depending on the voids involved (see page 5, paragraph 44). Plasticizer may be present in the polymeric degradable material (see page 4, paragraph 34). The fluid of Nguyen is of course a well servicing fluid.

As to claim 56, the disclosure of page 2, paragraphs 21 and 22 teaches fluids within the ranges claimed. As to claim 64, the disclosure of claim 68 of the reference

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teaches fluids within the ranges claimed. As to claim 67, the disclosure of page 2, paragraph 21 and page 5, paragraph 45 teaches fluids within the ranges claimed.

11. Claims 15-22, 28-30, 47-49, 55-64 and 66-67 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Moradi-Araghi et al. in US patent 6,387,986. The applicable law concerning 35 USC 103(a) is discussed below.

Moradi discloses a gel-forming composition comprising a material encapsulated with a degradable first polymer; a second polymer and a liquid (see column 3, lines 59-65); a clay may be included as a viscosifier (may be at 0.25 weight percent) and a weighting agent such as calcium carbonate [which can also act as a bridging agent] may also be added (see column 3, line 66 to column 4, line 27). The degradable first polymer may be a polyorthoester (see column 3, lines 12-16). The second polymer may be a carboxymethylcellulose or xanthan gum (may be at 0.01 weight percent) [well known as viscosifiers and fluid loss control agents], among others (see column 5, lines 4-22 and 60-67). The liquid may be water (see column 6, lines 12-17). The fluids of Moradi can be used during drilling (see column 6, lines 60-65). The capsules of the first polymer may be fairly small (see Example 1 and column 4), so can act as a bridging agent.

The method step of circulating is implied in the disclosure of use in drilling. The method steps of forming a cake and degrading/self-degrading this cake are inherent in the materials used here when placed downhole. Note that the capsule may be designed

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so that gellation is slow and a thin gel may be produced (see column 4); this allows for an initial filter cake to form and degrade (at least in part) before a second type of cake is formed; this second cake may be much thinner and more permeable than the first.

As to claim 29, the definition given at page 6, paragraph 20 of the specification for efficient filter cake is broad enough to include about any situation disclosed by the reference. As to claims 30 and 67, some of the amounts described for degradable material in the reference are within those of claim 30 and 67 (see column 4 and Example 1).

As to claim 56, fluids within this range are taught (see columns 4, 5, and 6).

The reference describes/contemplates capsules of degradable polymer of small enough size to be useful as a bridging agents (see Example 1 and column 4). Larger capsules can be used for this purpose, even if not optimally. In any case, it would have been obvious to one of ordinary skill in the art to optimize the size of the capsules, and in the course of this routine optimization process, capsules within the range of claim 28 and 55 would have been made which are clearly suitable for use as bridging agents.

To the extent that the size of the capsule, such as in Example 1, differs from the size in claims 28 and 55, it would have been obvious to optimize the size to achieve specific degradation times.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 47-50 and 55-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen in US Patent Application Publication 2004/026199. The disclosures of Nguyen have been described in detail above.

Nguyen teaches all of the limitations of the rejected claims in the proper context, except for the specific limitations recited in claims 55, 60 and 62.

As to claim 55, Nguyen teaches that the degradable material may be of various particles types (including sizes) depending on the voids involved (see page 5, paragraph 44). It would have been obvious to one of ordinary skill in the art to perform routine optimization on the particle sizes of the degradable material of Nguyen and in the process would have produced particles within the size range of the claim for an average formation.

As to claim 60, the fluid loss agent, which may also function as a viscosifier, may be present at 0 to 25 weight percent. It would have been obvious to one of ordinary skill

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in the art to perform routine optimization on the amount of this material and in the process fluids with the range of claim 60 would have been made.

As to claim 62, the viscosifier may be a natural gum (see page 3, paragraph 24). Xanthan, a natural gum, is notoriously well known in the art for use as a viscosifier in oil field fluids.

14. Claims 15, 23, 47, 50 and 65 are rejected under 35 U.S.C. 103(a) as obvious over Moradi-Araghi et al. in US patent 6,387,986. The Moradi reference has been discussed in detail above, and teaches all of the limitations of the rejected claims in the proper context, except for specific limitations in claims 23, 50 and 65.

The use of plasticizers as in claims 23 and 50 is notoriously well known and would have been at least obvious to one of ordinary skill in the art.

The use of at least hydroxyethylcellulose as a fluid loss agent is notoriously well known in fluids like those of the reference, and this cellulose is at least suggested by disclosure in column 5 of the reference rendering claim 65 obvious to those of ordinary skill in the art.

15. Claims 15-23, 28-30, 47-50 and 55-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantu et al. in US Patent 4,957,165 in view of Cooke in US Patent Application Publication 2003/0060374 and Moreau et al. in US Patent 4,894,231.

Cantu teaches a fluid for use in drilling in and related processes (see column 1, lines 10-20). A component in this fluid may be a condensation product of hydroxyacetic

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(glycolic) acid with itself [the poly acid] or compounds containing other hydroxy, carboxylic acid or hydroxycarboxylic acid moieties [the next one up the homologous series from hydroxyacetic is lactic]; these products are solids and insoluble in aqueous and hydrocarbon media, but will degrade in the presence of moisture (see column 2, lines 27-45). The condensation product has a variable particle size distribution with 10 to 50 microns a good range (see column 3, lines 10-20). The hydroxyacetic acid condensation product can be used as the sole fluid loss additive or in combination with other fluid loss additives (see column 3, lines 25-30); calcium carbonate may be used as another fluid loss additive and will dissolve in acid (see column 1, lines 60-64). These particulate fluid loss agents also function as bridging agents. An aqueous gel of hydroxyethylcellulose may also be included (see column 2, lines 55-65) – it can function as both a viscosifier and as a fluid loss control agent.

The method step of circulating is implied in the disclosure of use in drilling. The method steps of forming a cake and degrading/self-degrading this cake are inherent in the materials used here when placed downhole.

As to claims 56 and 64, see example 1.

Cantu teaches all the limitations of the rejected claims in the proper context, but does not teach the use of the elected species, polyorthoesters, nor does it teach the specific limitations of claims 23, 30, 50, 60, 62 and 67.

Cooke teaches fracturing using degradable fluids or degradable polymer pellets (see Abstract). Cooke describes the use of water degradable polymers such as polylactide and copolymers of lactide and glycolide (see page 3, paragraph 22). There

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is also mention of the use of degradable polymers as medical devices being well known and studied (see page 3, paragraph 25); thus, those of ordinary skill in the art would have been aware that substitute degradable polymers (those with a reasonable expectation of success) may be found in the medical art.

Moreau teaches the use of polylactic, polyglycolic, polyorthoesters and copolymers of lactide and glycolide as degradable polymers for use in delivery of therapeutic agents (see column 2, lines 10-35).

From these teachings, it would have been obvious to one of ordinary skill in the art that polyorthoesters are good substitutes for the degradable polymers in the fluids of Cantu.

The use of plasticizers as in claims 23 and 50 is notoriously well known and would have been at least obvious to one of ordinary skill in the art.

The limitations of claims 30, 60 and 67 would have been obvious from routine optimization of the corresponding parameters in order to achieve desired rheological properties over time.

As to claim 62, it is notoriously well known that xanthan forms an aqueous gel useful in applications as is hydroxyethylcellulose.

Double Patenting

16. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

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from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

17. Claims 15, 22, 29, 47 and 49 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 4, 18, 20, 59 and 76 of copending Application No. 10/832,163. Although the conflicting claims are not identical, they are not patentably distinct from each other.

Claim 4 of the reference directly or indirectly teaches the limitations of rejected claim 15. Circulating a drilling fluid is understood to be part of a drilling step by those of ordinary skill in the art. Self degradation is a well known type of degradation; in any case, the polymers of reference claim 20 are well known as self degrading.

Claim 4 of the reference teaches all of the limitations of rejected claim 29 (see previous paragraph), except for the efficient filter cake limitation. The latter is taught by reference claim 18. It would have been obvious to one of ordinary skill in the art to combine claims 4 and 18 of the reference (and reference claim 20 as needed) given the contexts of the reference claims cited. Similarly, claim rejected claim 22 is obvious over reference claims 4 and 20.

Claim 59 of the reference teaches the limitations of rejected claim 47 in the right context, rendering rejected claim 47 at least obvious. Similarly, reference claim 76 renders rejected claim 49 obvious.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

18. Claims 47, 49-50 and 64 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 67-68 and 72-73 of copending Application No. 10/608,319. Although the conflicting claims are not identical, they are not patentably distinct from each other.

As can be seen directly and especially by reference to the rejections above over Nguyen (the corresponding publication of the application cited as a reference here), claim 67 of the reference corresponds to an embodiment of rejected claim 47, reference claim 68 to rejected claim 64, reference claim 72 to rejected claim 49 and reference claim 73 to rejected claim 50. Thus, the rejected claims are at least obvious.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion


19. The prior art made of record through foreign search reports may or may not have been used above. If not, either the Examiner found more pertinent art or the cited art was not applicable after species election.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. R. Richard whose telephone number is 571-272-8502. The examiner can normally be reached on M-Th, 8am-6pm and alternate Fridays, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles R. Richard


PHILIP TUCKER
PRIMARY EXAMINER
ART UNIT 1712